

GRAPHIC EQUALIZER

GE-940

INSTRUCTION MANUAL

KENWOOD CORPORATION

Introduction

Your choice of this product indicates that you are a devotee to excellence in sound reproduction.

We appreciate your patronage and take pride in the long tradition of quality components that our company represents.

So that you can get the most out of your unit, we suggest that you take the time to read through this manual before you hook up and operate your system. This will acquaint you with operating features and system-connection considerations so that your listening pleasure will be enhanced right from the start. You will notice that in all aspects of planning, engineering, styling, operating convenience and adaptability we have sought to anticipate your needs and desires.

Keep this manual handy for future reference.

For your records

Record the serial number, found on the back of the unit, in the spaces designated on the warranty card, and in the space provided below. Refer to the model and serial numbers whenever you call upon your dealer for information or service on this product.

Model _____ Serial Number _____

Unpacking

Unpack the unit carefully and make sure that all accessories are put aside so they will not be lost.

Examine the unit for any possibility of shipping damage. If your unit is damaged or fails to operate, notify your dealer immediately. If your unit was shipped to you directly, notify the shipping company without delay. Only the consignee (the person or company receiving the unit) can file a claim against the carrier for shipping damage.

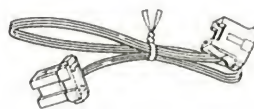
We recommend that you retain the original carton and packing materials for use should you transport or ship the unit in the future.

Accessories

Audio cords 2 AC plug adaptor 1



System control cord 1



(except for some areas)
For the unit with a European AC plug in areas other than Europe.

Contents

Caution: Read the pages marked  carefully to ensure safe operation.

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Before applying power

For the U.S.A. and Canada

Important!

Units shipped to the U.S.A. and Canada are designed for operation on 120 volts AC only.

Safety precaution for a Polarized AC plug

However, some products may be supplied with a non-polarized plug.

CAUTION: TO PREVENT ELECTRIC SHOCK DO NOT USE THIS (POLARIZED) PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

For the United Kingdom

Important!

Units shipped to the U.K. are designed for operation on 240 volts AC only.

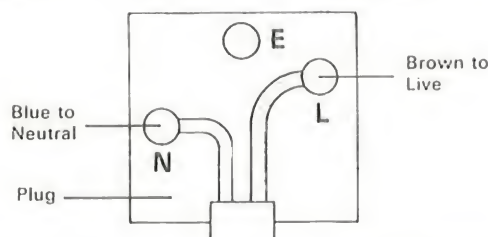
The mains plug must be removed from the wall socket prior to any internal examination.

The wires in this mains lead are coloured in accordance with the following code:

Blue	Neutral
Brown	Live

The wires in this mains lead must be connected to the terminals in the plug as follows:

Wire colour	Plug terminal marking
Blue	N or Black
Brown	L or Red



Notes:

1. If a 13-amp plug is used, this must be fitted with a 5-amp fuse.
2. If a 3-pin plug with earthing contact is used, no wire must be connected to the E terminal.

For Australia and Europe

Important!

Units shipped to Australia are designed for operation on 240 V AC only.

Units shipped to Europe are designed for operation on 220 V AC only.

For other countries

Important!

Units shipped to countries other than the above countries are equipped with an AC voltage selector switch on the rear panel. Refer to the following paragraph for the proper setting of this switch.

AC voltage selection

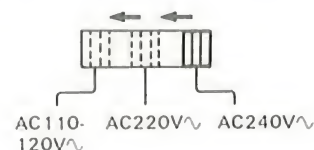
This unit operates on 110-120 or 220-240 volts AC. The AC voltage selector switch Type A or Type B on the rear panel is set to the voltage that prevails in the area to which the unit is shipped. Before connecting the power cord to your AC outlet, make sure that the setting position of this switch matches your line voltage. If not, it must be set to your voltage in accordance with the following direction.

Note:

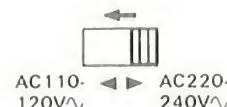
Our warranty does not cover damage caused by excessive line voltage due to improper setting of the AC voltage selector switch.

AC voltage selector switch

Type A







Type B



Move switch lever to match your line voltage with a small screwdriver or other pointed tool.

Safety precautions

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

 <div data-bbox="254 1672 508 1747" style="border: 1px solid black; padding: 5px; text-align: center;"> CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN </div> 	<p>CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.</p>
	<p>THE LIGHTNING FLASH WITH ARROWHEAD SYMBOL, WITHIN AN EQUILATERAL TRIANGLE, IS INTENDED TO ALERT THE USER TO THE PRESENCE OF UNINSULATED "DANGEROUS VOLTAGE" WITHIN THE PRODUCT'S ENCLOSURE THAT MAY BE OF SUFFICIENT MAGNITUDE TO CONSTITUTE A RISK OF ELECTRIC SHOCK TO PERSONS.</p>
	<p>THE EXCLAMATION POINT WITHIN AN EQUILATERAL TRIANGLE IS INTENDED TO ALERT THE USER TO THE PRESENCE OF IMPORTANT OPERATING AND MAINTENANCE (SERVICING) INSTRUCTIONS IN THE LITERATURE ACCOMPANYING THE APPLIANCE.</p>

IMPORTANT SAFEGUARDS

Please read all of the safety and operating instructions before operating this unit. For best results, follow all warnings placed on the unit and adhere to the operating and use instructions. These safety and operating instructions should be retained for future reference.

1. **Power sources** – The unit should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.
2. **Power-cord protection** – Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them. Pay particular attention to cords at plugs, convenience receptacles, and the point where they exit from the unit.

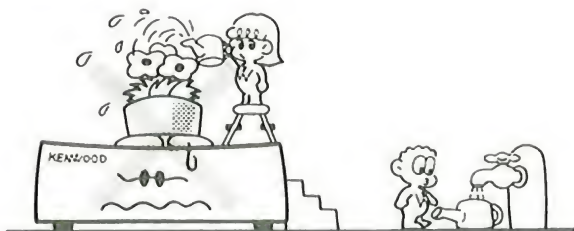
Never pull or stretch the cord.



3. **Grounding or polarization** – The precautions should be taken so that the grounding or polarization means of this unit is not defeated.
4. **Ventilation** – The unit should be situated so that its location or position does not interfere with its proper ventilation. To maintain good ventilation, do not put records or a table-cloth on the unit. Place the unit at least 10 cm away from the walls. Do not use the unit on a bed, sofa, rug or similar surface that may block the ventilation openings.

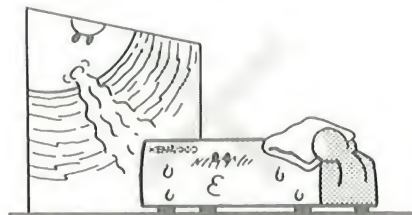


5. **Water and moisture** – The unit should not be used near water - for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc.

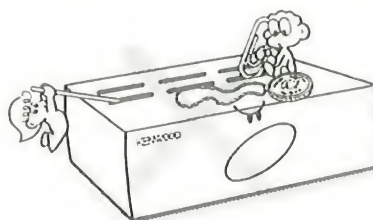


6. **Temperature** – The unit may not function properly if used at extremely low, or freezing temperatures. The ideal ambient temperature is above +5°C (41°F).

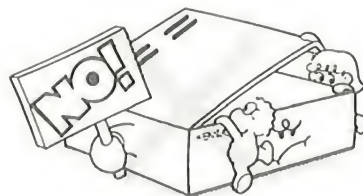
7. **Heat** – The unit should be situated away from heat sources such as radiators, heat registers, stoves, or other units (including amplifiers) that produce heat.



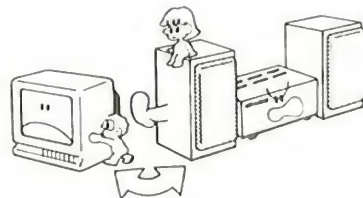
8. **Electric shock** – Care should be taken so that objects do not fall and liquid is not spilled into the enclosure through openings. If a metal object, such as a hair pin or a needle, comes into contact with the inside of this unit, a dangerous electric shock may result. For families with children, never permit children to put anything, especially metal, inside this unit.



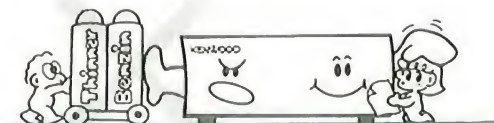
9. **Enclosure removal** – Never remove the enclosure. If the internal parts are touched accidentally, a serious electric shock might occur.



10. **Magnetic fields** – Keep the unit away from sources of magnetic fields such as TV sets, speaker systems, radios, motorized toys or magnetized objects.



11. **Cleaning** – Do not use volatile solvents such as alcohol, paint thinner, gasoline, or benzine, etc. to clean the cabinet. Use a clean dry cloth.



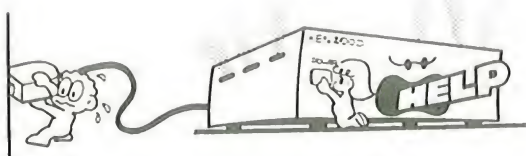
- 12. Carts and stands** – An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.



- 13. Nonuse periods** – The power cord of the unit should be unplugged from the outlet when left unused for a long period of time.

- 14. Abnormal smell** – If an abnormal smell or smoke is detected, immediately turn the power OFF and pull out the power cord. Contact your dealer or nearest service center.

POWER OFF!

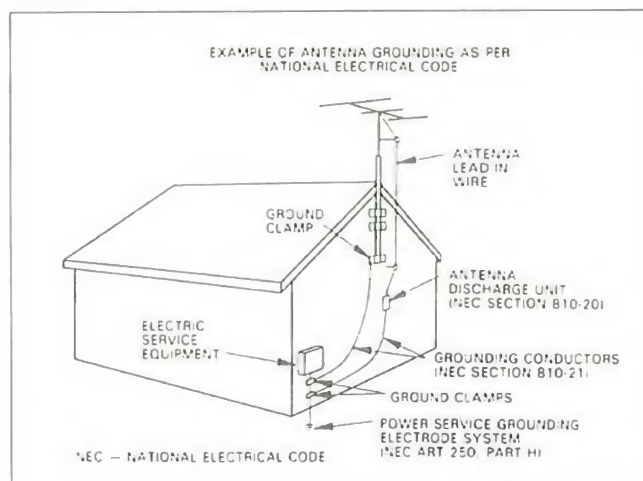


- 15. Damage requiring service** – The unit should be serviced by qualified service personnel when:

- A. The power-supply cord or the plug has been damaged; or
- B. Objects have fallen, or liquid has been spilled into the unit; or
- C. The unit has been exposed to rain; or
- D. The unit does not appear to operate normally or exhibits a marked change in performance; or
- E. The unit has been dropped, or the enclosure damaged.

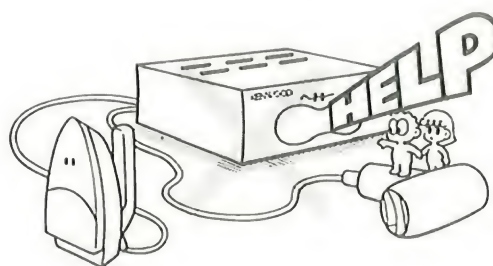
- 16. Servicing** – The user should not attempt to service the unit beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

- 17. Outdoor antenna grounding** – If an outside antenna is connected to the receiver, be sure the antenna system is grounded so as to provide some protection against voltage surges and built up static charges. Section 810 of the National Electrical Code, ANSI/NFPA No. 70 – 1984, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. See Figure.



- 18. Power lines** – An outdoor antenna should be located away from power lines.

- 19. AC outlets** – Do not connect other audio equipment with a power consumption larger than that specified to the AC outlet on the rear panel. Never connect other electrical units, such as an iron or toaster, to it to prevent fire or electric shock.



The maximum capacities indicated for the AC outlet on the rear panel of this unit are as follows.

UNSWITCHED outlet: 200 W

Notes:

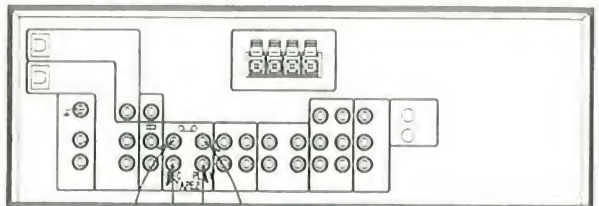
- 1. Item 3 is not required except for grounded or polarized equipment.
- 2. Item 17 and 18 are not required except for units provided with antenna terminals.
- 3. Item 17 complies with UL in the U.S.A.

System connections

Make connection as shown below. When connecting the related system components, refer also to the instruction manuals of the related components.

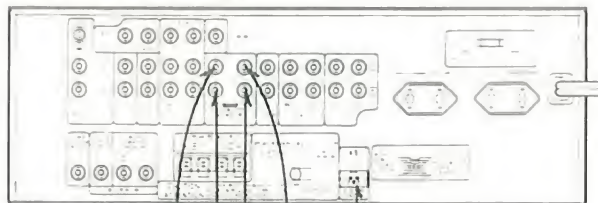
Do not plug in the power lead until all connections are completed.

Amplifier (General)



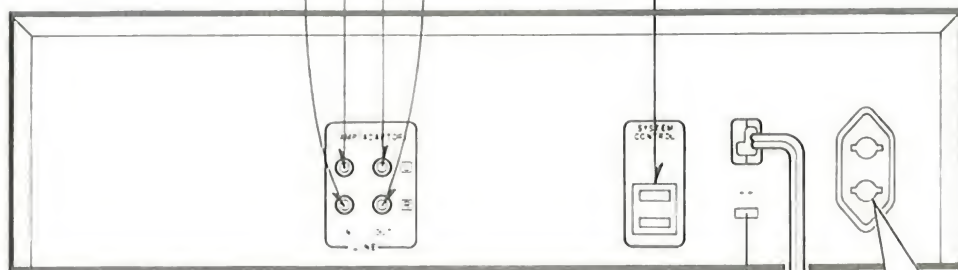
Connect to the TAPE jacks
(TAPE MONITOR)
(Set the TAPE MONITOR switch to
the monitoring position.)

KENWOOD MIDI System Amplifier
A-94, A-74, A-54, A-34.



Audio cord

System control cord



AC voltage selector
(except for some areas)

For U.K.

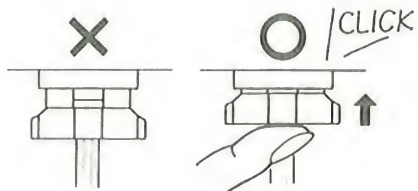
AC outlet
except for
Australia

SYSTEM CONTROL terminal

When connected to an amplifier having KENWOOD SYSTEM CONTROL terminals, system operation such as remote control is made possible. For details, refer to the instruction manual of the amplifier.

If your amplifier is not equipped with the SYSTEM CONTROL terminals, do not connect anything to any SYSTEM CONTROL terminal.

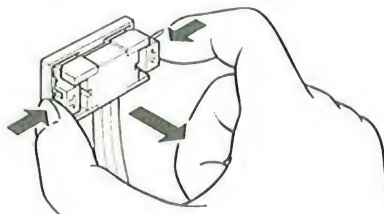
Do not connect the unit in any system configuration other than specified.



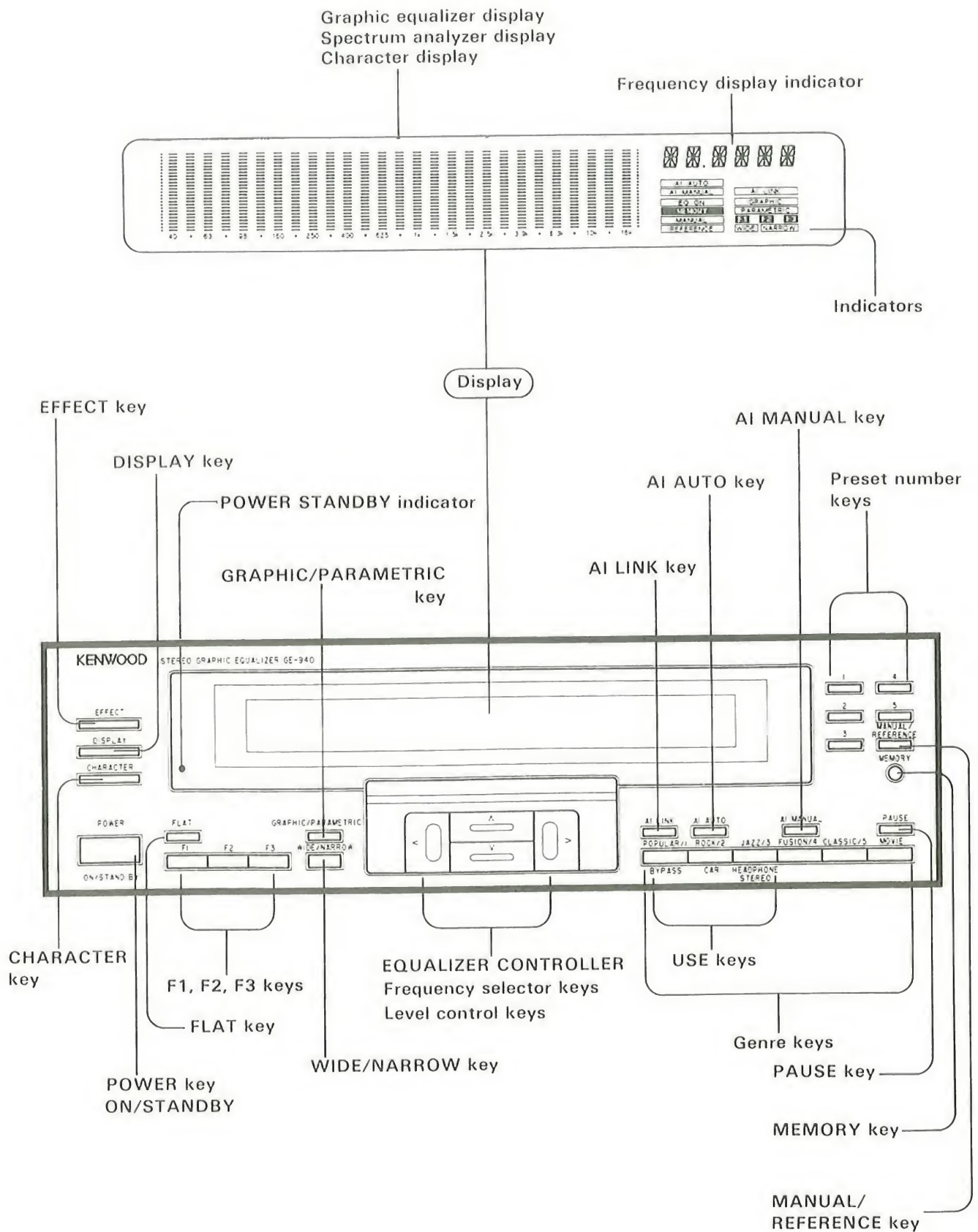
● Insert securely until it clicks.

When unplugging the cord

Push and hold the two ends of the connector and pull the connector straight from the rear panel socket.



Controls and indicators



Operation of graphic equalizer

This unit is a sophisticated graphic equalizer allowing detailed adjustment of the frequency bands. When this unit is connected to one of *KENWOOD MIDI Systems M-94, M-949, M-74, M-747, M-54 and M-34, the tone suitable for each music source will be made available by the following AI (Artificial Intelligence) features.

1. DEMO (Demonstration)

Displays various equalizer curves visually in sequence together with the actual sound effect of each curve as audible demonstration.

2. AI-AUTO (available only for CD play)

Checks the contents recorded on a CD automatically, and sets the optimum equalizer pattern according to the CD.

This feature is to be used when you need a simplified selection of playback equalizer pattern.

3. AI-MANUAL (available with any input source)

A total of 30 playback patterns have been factory-preset by combining five recommended equalizer patterns with six music genres, so that any of them can be selected by actually comparing them. Similarly, selection from 30 types of recording patterns for playback on car stereo or from 30 types of recording patterns for playback on headphone stereo is also available.

Select the optimum equalizer pattern according to the music genre and purpose of use of the pattern.

4. MANUAL/REFERENCE modes

REFERENCE : Five exemplary patterns have been preset at the factory.

MANUAL : Five preset patterns have been factory-preset for this mode, too. In this mode, it is also possible to preset (assign) equalizer patterns created by the user in place of the factory presets.

5. GRAPHIC/PARAMETRIC mode

GRAPHIC : The equalizer curve can be adjusted in a detailed way for every frequency range. It is also possible to fine-adjust a curve which has been created in the PARAMETRIC mode. The GRAPHIC mode is to be used when detailed adjustment of acoustic compensation is required.

PARAMETRIC : The equalizer curve can be adjusted in a simplified manner based on the low-, medium-and high-frequency ranges.

6. AI-LINK (available with M-94/949 system only)

When the DSP presence mode is selected on the amplifier, optimum equalizer curve for this mode is selected automatically to enhance the presence effect.

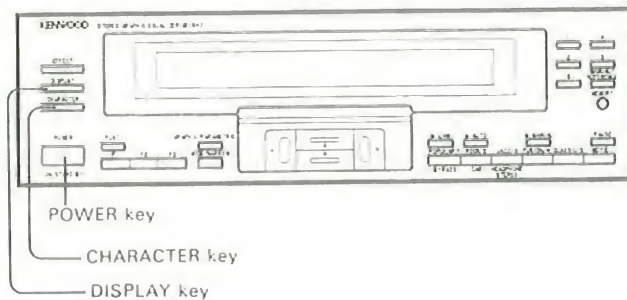
7. CHARACTER

In the spectrum analyzer display mode, the level of the music being played and changes of frequency distribution with four different patterns and the animations are displayed.

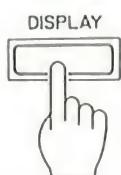
SPE.ANA	1: NORMAL	Normal spectrum analyzer display
	2: SHOWER	Reversed normal spectrum analyzer display with the normal peak hold levels display
	3: HORIZONTAL	Displays right and left levels with the frequency band in horizontal axis and level in vertical axis.
	4: SEE-THROUGH	Displays peak hold levels only.
ANIMATION		Displays various patterns regardless of the frequency or level.

*IMPORTANT:

These systems may not be available in some areas.
For details on systems, consult your dealer.



Contents of display



The display mode changes every time the **DISPLAY** key is pressed.

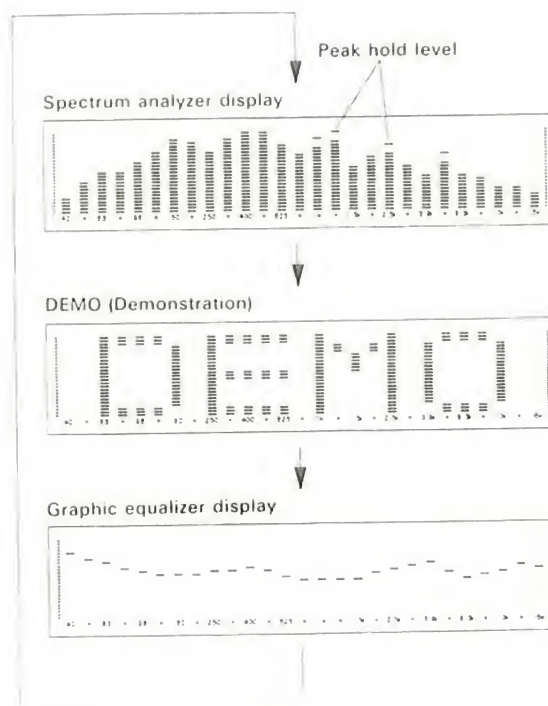
Spectrum analyzer display

Displays the frequency distribution of the source being played to allow understanding at a glance. The peak value of the varying level of each frequency range is held and displayed for about 0.5 second.

Graphic equalizer display

Shows how each frequency range is compensated. The graphic equalizer display also appears for about 5 seconds, even while the unit is in the spectrum analyzer display mode, when one of the following operations is performed.

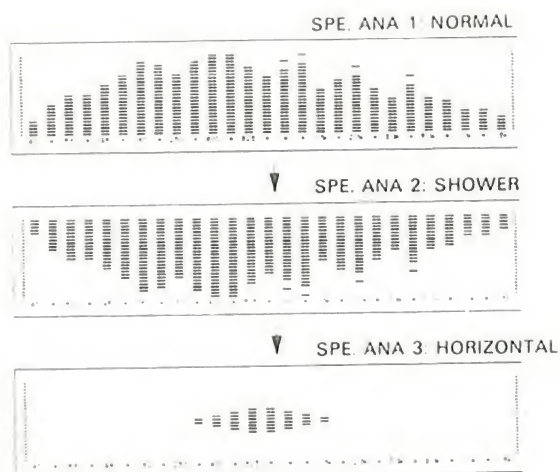
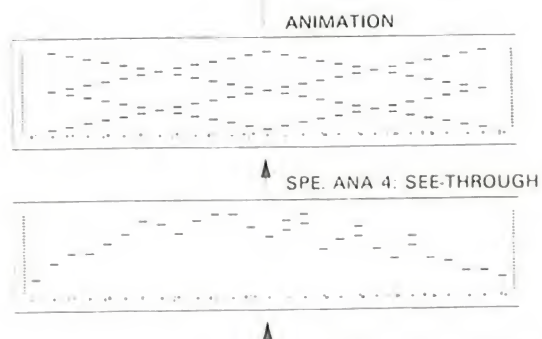
1. Switching power ON.
2. An operation key associated with an equalizer operation is pressed.



Character display

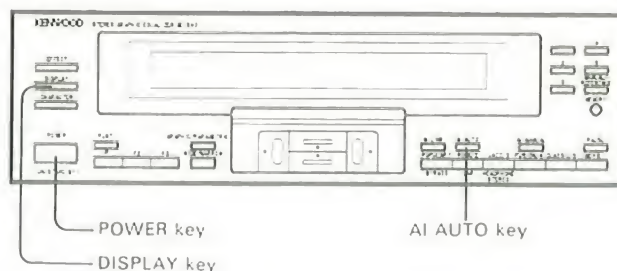


The display mode changes every time the **CHARACTER** key is pressed.

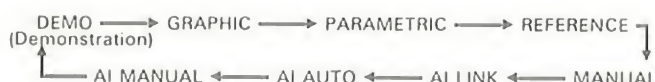
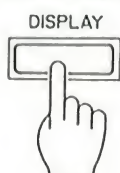


Demonstration procedure

This feature makes it possible to check the equalizer effects both visually and audibly.



- ① Play the source.
 - ② Select DEMO with the DISPLAY key.
- Demonstration is repeated in the following cycle:

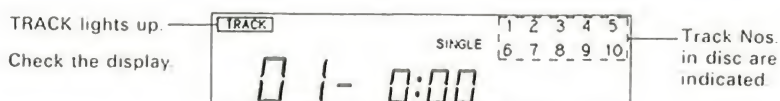


- Press the DISPLAY key to stop demonstration.
- During AI LINK demonstration, the DSP mode of the amplifier also changes.

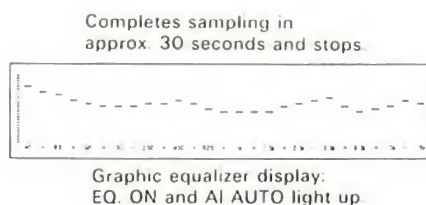
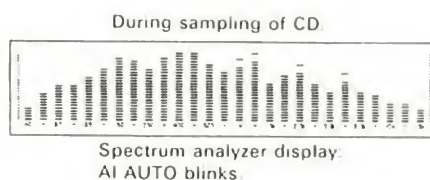
Operation of AI AUTO (for CD play only)

The equalizer curve suitable for a specific disc is set automatically by simply pressing the AI AUTO key.

- 1 Place a disc in the CD player.



- 2 Press the AI AUTO key.



- Wait for about 30 seconds until EQ.ON and AI AUTO light up.

- 3 Start playing the CD player.

Note:

In step 2, the other keys than the AI AUTO and the POWER key do not operate.

To cancel AI AUTO:



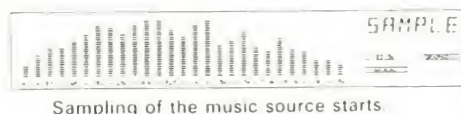
- AI AUTO is canceled also when the disc tray is opened.
- If it is canceled during AI AUTO setting operation, the last pattern selected before is displayed.
- If it is canceled after AI AUTO setting operation, the curve becomes flat.

■ Operation of AI MANUAL

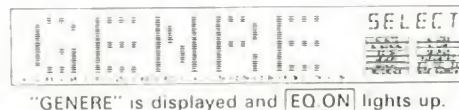
Through selections of the music genre, tone pattern and purpose of use in three steps, this feature allows to obtain the optimum playback pattern from the 90 equalizer patterns (6 genres × 5 patterns × 3 purposes of use = 90)

1 Play a music source.

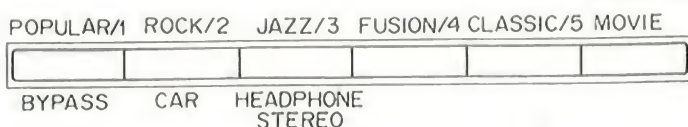
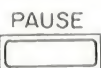
2 Initiate the AI MANUAL mode.



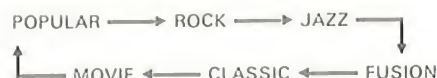
About 20 seconds



3 Select the genre of music.

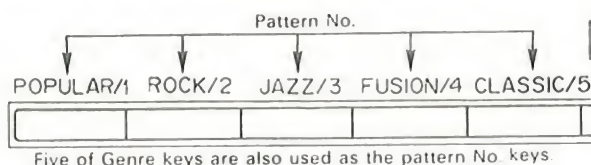


Until you actually select the music genre, patterns of the genres are displayed in repeated cycles (7 seconds) and the tones heard also change accordingly.

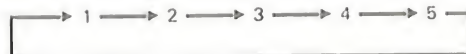


If the **PAUSE** key is pressed in step 3 or 4, the repetition of equalizer patterns stop so that you can check the tone of a specific pattern more in details. The repetitions resume when the **PAUSE** key is pressed again.

4 Select the desired tone pattern.

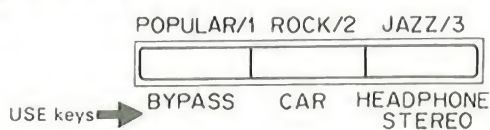


Until you actually select a tone pattern, the five patterns available with the genre selected in step 3 are displayed in repeated cycles and the tones heard also change accordingly



- After the tone pattern has been selected, characters "USE" appears on the display.

5 Select the purpose of use of the pattern.



- When the curve is selected by the use key, the **AI MANUAL** indicator will remain lighted after blinking.

Major purposes of use provided by the Use keys.

- BYPASS** key : For use in normal playback and recording.
- CAR** key : For use in recording of tapes to be played on car stereos.
- HEADPHONE** key : For use in recording of tapes to be played on headphone stereo players.

For the **CAR** or **HEADPHONE STEREO** use, a special curve for use in recording is combined and displayed. For the procedure of recording sound with equalizer effect, refer to page 16.

To cancel AI MANUAL:



- If it is canceled during AI MANUAL setting operation, the last pattern selected before is displayed.
- If it is canceled after AI MANUAL setting operation, the curve becomes flat.

Note:

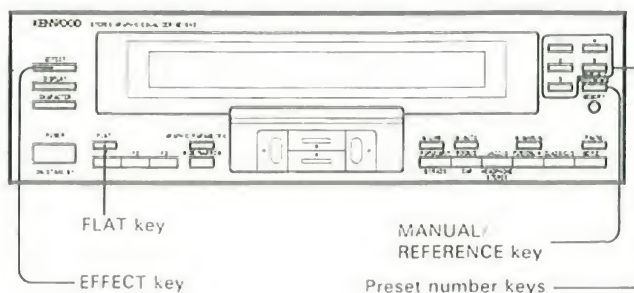
During the playback with AI MANUAL, the operation keys are defeated except for the AI MANUAL key and POWER key.

■ Operation of MANUAL/REFERENCE feature

This feature allows to recall one of ten preset equalizer patterns in a simple manner.

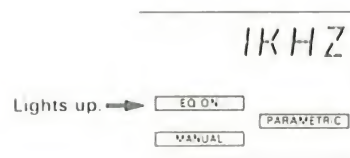
The equalizer pattern curves of the REFERENCE mode are capable of modifying automatically in case of double-speed recording.

The equalizer patterns of the MANUAL mode are mainly for use in playback with DSP effect or recording of tapes played on car stereo and headphone stereo.



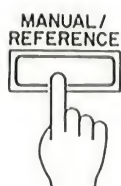
1 Play a music source.

2 Press the EFFECT key.

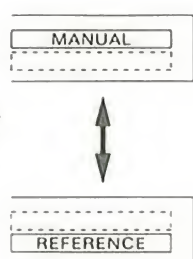


3 Select an equalizer pattern.

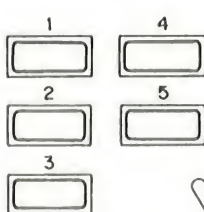
① Set to MANUAL or REFERENCE.



Only one of them light up



② Press the key for the desired pattern.
(Refer to the equalizer pattern list.)



Example when "3" is selected in the MANUAL mode.

M3

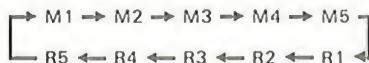
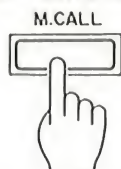
EQ ON
MANUAL

Example when "4" is selected in the REFERENCE mode.

R4

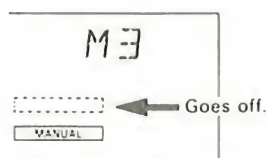
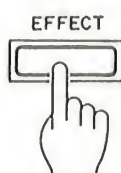
EQ ON
REFERENCE

Remote - Controlled selection is also possible.



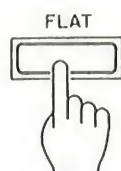
Patterns are switched every time the M.CALL key is pressed.

To cancel the equalizer effect:



- The pattern being displayed remains the same.

How to use the FLAT key.

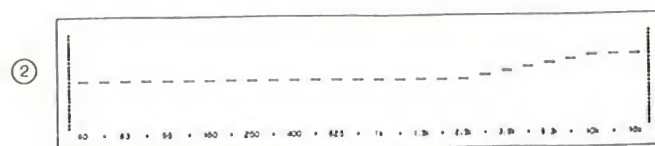
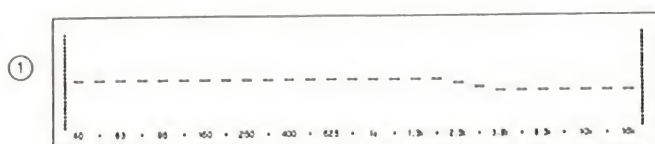


- Pressing the FLAT key makes the display curve flat.

■ List of equalizer patterns

Preset equalizer patterns (REFERENCE) (R1 – R5) The patterns in this mode adapt automatically to double-speed CCRS.	Preset equalizer patterns (MANUAL) (M1-M5) It is possible to store in preset memory in this mode.
R1 (Soft): For listening to background music, etc., with comfortable sound to ears.	M1 (DSP of amplifier ARENA setting): For listening to popular or rock music with intensified bass or vocal.
R2 (Clear): For listening with brilliant sound with attenuated bass.	M2 (DSP of amplifier STADIUM setting): For listening to popular or rock music with intensified bass, vocal, or treble.
R3 (Heaby): For listening to rock, fusion music, etc., with more powerful sound.	M3 (DSP of amplifier STADIUM setting): For listening to orchestral music with intensified bass, vocal, or treble.
R4 (scale): For listening with more exciting sound.	M4 (Car): For recording sound with tone adjusted for playback on car stereo.
R5 (Noise reduction for use in double-speed recording): For listening to soft sound by attenuating stimulating medium and higher frequencies.	M5 (Headphones): For recording sound with tone adjusted for playback on headphone stereo.

When R5 is selected, pattern ② below is recalled only in case of double-speed recording, and pattern ① is used in playback. As a result, R5 can provide a noise reduction function.



■ Operation of AI LINK

AI LINK is used in conjunction with the DSP PRESENCE key of the amplifier.



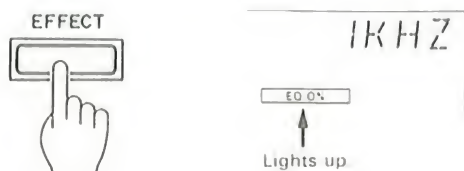
- The optimum equalizer curve for the presence mode (ARENA, JAZZ CLUB, STADIUM, DISCO, CHURCH, MOVIE) selected on the amplifier is selected automatically to further enhance the presence effect.
- This function is valid only with the KENWOOD A-94 MIDI system amplifier.
- In the ARENA or STADIUM mode use Preset number key M1, M2, or M3 for more intensified presence effect.

Creation of desired equalizer patterns

- PARAMETRIC:** This mode allows to create a curve for up to three ranges centered around the user-selected frequencies in the low-,medium-and high-frequency ranges. The inclination of each curve can be selected between WIDE (gentle slope) and NARROW (steep slope).
- GRAPHIC:** This mode allows to adjust the equalizer curve for each frequency band provided. The curve created in the Parametric mode can be fine-adjusted in this mode.

■ Adjusting curves centered around user-selected frequency ranges (Parametric mode)

1 Press the EFFECT key.

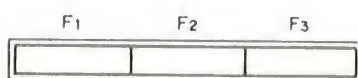


2 Select the Parametric mode.



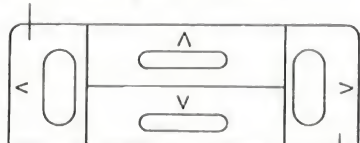
3 Select the center frequency of the range to be adjusted.

① Select the frequency range.



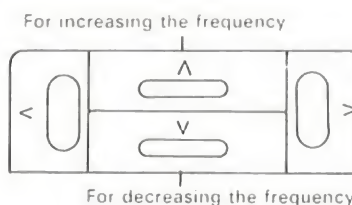
② Select the center frequency.

For decreasing the frequency



For increasing the frequency

4 Adjust the level.



Pressing the **FLAT** key allows to start adjustment from the flat level position.

5 Select the inclination of the curve.

WIDE/NARROW

WIDE and NARROW alternates every time the key is pressed.



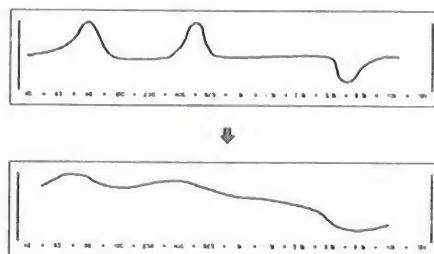
One of the two shall light up.



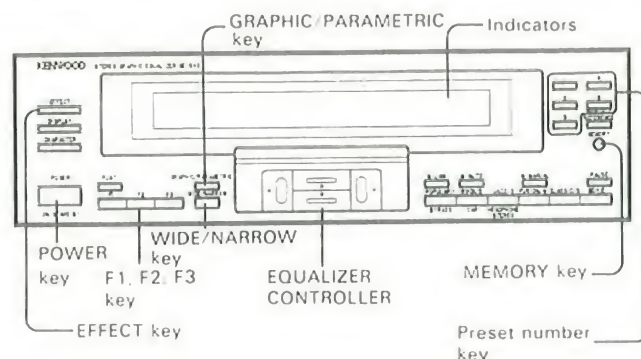
- Once adjusted, the curve remains the same until next time it is adjusted.

6 When the adjustments of ranges F2 and/or F3 are also required, repeat steps 3 to 5 for each of them.

- When two or three curves have been set, the overall curve obtained by combining them is displayed in a few seconds.

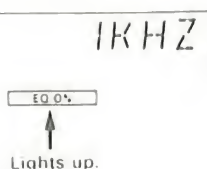
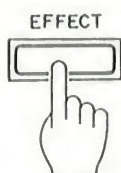


- For finer adjustment, perform the Graphic mode operation described in the following page.

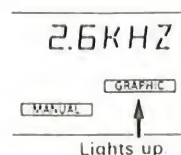
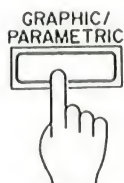


■ Fine adjustment of each frequency band (Graphic mode)

1 Press the EFFECT key.

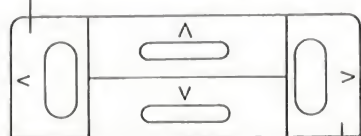


2 Select the Graphic mode.

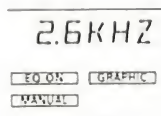


3 Select the frequency band to be adjusted.

For decreasing the frequency

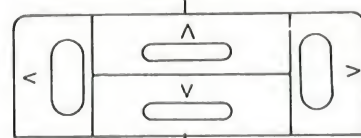


For increasing the frequency



4 Adjust its level.

For increasing the frequency



For decreasing the frequency



5 For each frequency band to be adjusted, repeat steps 3 and 4 above.

Note:

If the mode is switched from "Graphic" to "Parametric", the equalizer pattern created in the Graphic mode is cleared.

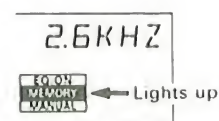
■ User-preset of user-created pattern

1 Create a desired equalizer pattern.

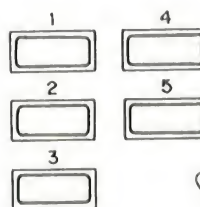
- Any equalizer pattern can be preset if it is being displayed.
- The pattern cannot be preset during operation of AI AUTO or AI MANUAL.

2 Preset the equalizer pattern in the manual memory.

① Press the MEMORY key.



② Press one of the preset keys.



Press while **MEMORY** is lighted up.

- Pattern is preset under the number of the numeric key pressed.
- Up to five patterns can be preset in the same manner.
- When a pattern has previously been preset under the numeric key pressed, the newly preset pattern replaces the previous pattern.

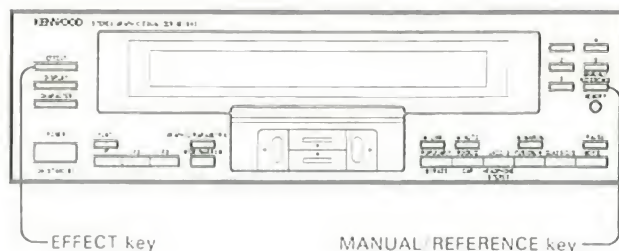
To return to the initial pattern (factory-preset patterns M1 to M5 on page 13) by clearing the user-preset pattern:

Press the preset key where the pattern to be cleared is preset for more than 5 seconds.

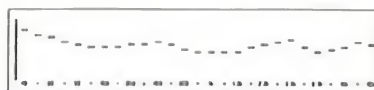
Recording sound with equalizer effect

■ Recording with normal equalizer effect

In addition to ordinary recording, special equalizer recording patterns (refer to page 13) can be used for effective playback on car stereo or headphone stereo.

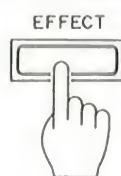


1 Display a desired equalizer pattern.



- Any equalizer pattern can be applied to recording if it is being displayed.

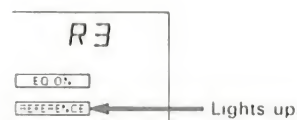
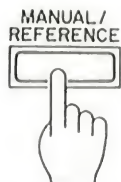
2 Press the EFFECT key to ON.



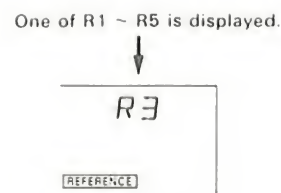
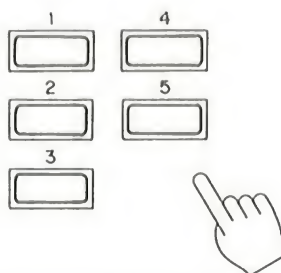
3 Start recording.

■ Double-speed recording of CD with equalizer effect (M-54, M-74/747, M-94/949 system)

1 Enter the Reference mode.



2 Select a reference equalizer pattern.



Only preset patterns R1 to R5 can be used in double-speed recording (refer to page 13)

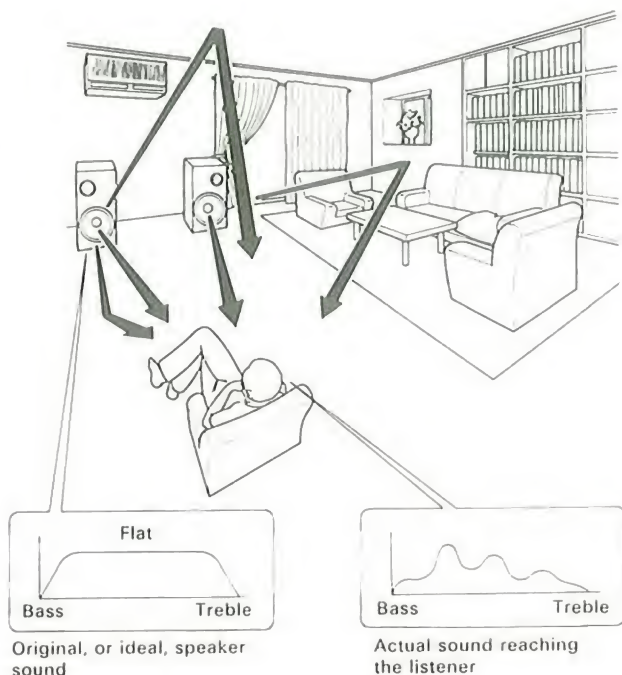
3 Press the EFFECT key to ON.



4 Start double-speed recording.

Note:
Do not set the recording level too high, for this may cause sound distortion at frequencies enhanced by the equalizer.

Functions of graphic equalizer



Compensation for the audio characteristics of the listening room

The listening room may contain several objects. Some of them reflect sound and some absorb sound, thus the sound reaching your ears is considerably affected by these objects.

In such cases, the graphic equalizer can be used to adjust the frequency response of the room for a flat response from low to high frequencies.

- Low frequencies are absorbed by beds, chairs, etc.
- High frequencies are absorbed by curtains, screens, etc.
- The room structure can cause the low frequencies to be unclear, or the sound level to increase or decrease depending on the frequency.

Adjustment of sound to your individual taste

When the reproduced sound contains several musical instruments and voices, the graphic equalizer allows you to enhance or attenuate the sound of specific instruments or voices.

Sound equalization

• Super bass range (40 Hz, 63 Hz)

When this control is moved up, the bass instrument (double bass, bass drums, or pipe organ, etc.) sound is increased.

When the super bass sound is boomy, move this control down.

• Bass range (98 Hz, 160 Hz)

Usually, the listening room resonance frequency is in this range.

To eliminate bass resonance, move this control down.

• Mid-bass range (250 Hz, 400 Hz)

This range is the basis of music. Whether the sound is rich or not, depends on this range. When the playback sound is not so good, move this control up.

• Mid range (625 Hz, 1 kHz)

When this control is moved up or down, the baritone or soprano voice is emphasized/de-emphasized. This range is related to the "presence" of music.

• Mid-high range (1.5 kHz, 2.5 kHz)

This range is related to stimulus and metallic sound. When this range is well compensated, vivid sound can be obtained.

• High range (3.9 kHz, 6.3 kHz)

This frequency range is related to the hardness of the sound. When this control is moved up, strings or brass instruments, such as flutes or piccolos, are emphasized. When the control is moved down, the sound will be more soothing.

• Super high range (10 kHz, 16 kHz)

This frequency range is related to the details of the music. When this control is moved up, super high frequency instruments, such as triangles or cymbals, are emphasized, resulting in wide sound and echoes.

In case of difficulty

What appears to be a malfunction may not always be serious. If your unit should not perform as expected, consult the table below to see if the problem can be corrected before seeking help from your dealer or service representative.

Symptom	Cause	Remedy
Power fails to turn on.	<ul style="list-style-type: none"> Poor connection of the power cord plug. The power cord plug is connected to the SWITCHED outlet of the amplifier, and the power switch is turned off. 	<ul style="list-style-type: none"> Connect the power cord plug securely. Turn on the power switch of the amplifier.
No equalizer	<ul style="list-style-type: none"> The input and output connections are reversed. 	<ul style="list-style-type: none"> Connect the input and output correctly.

Notes:

- As this system uses microprocessors, it may not function properly due to external noise or interference noise. If this happens, disconnect the power plug from the outlet, wait several seconds, then reconnect.
- Contact restoring agents may cause malfunction and therefore should not be used. Contact restoring agents which contain oil should be especially avoided, as they can cause deformation of plastic parts.

Specifications

Equalizer characteristic

Variable range	± 12 dB
Variable range	40 Hz, 63 Hz, 98 Hz, 160 Hz, 250 Hz, 400 Hz, 625 Hz, 1 kHz, 1.5 kHz, 2.5 kHz, 3.9 kHz, 6.3 kHz, 10 kHz, 16 kHz

Total harmonic distortion Less than 0.006 % (1 kHz)

Maximum output voltage 9V (1 kHz)

S/N ratio 100 dB (IHF-A network, 1V)

Input impedance 47 k Ω

Output impedance 2.2 k Ω

General

Power consumption 18 W

Dimensions W: 360 mm

H: 109 mm

D: 353 mm

Weight 3.4 kg

Note:

KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.

Observera:

Aoparatens stömförsörjning koplas från-sekundärt, v.g. ge akt på följande.

Apparatens fränkopplas inte helt och hållet från strömnätet medan apparatens nätsladd är ansluten till växeiström-suttaget.

Huom:

Virta yksikköön on kytetty pois sekundaaripuolelta.

Huomioi seuraava.

Tämä yksikkö ei ole kokonaan kypketty pois pää virranjaka-jasta kun pää katkaisin on liitettyä virtatiiriin.

Note:

The unit's power supply is secondarily connected. Note following.

The unit is not completely disconnected from the mains as long as the power cord is connected to a wall outlet.

Bemærk:

Strømmen til aoparatet afbrydes på den sekundære side. Vær opmærksom på følgende.

Denne enhed er ikke fullstendig koblet fra lysnettet så længe stikket er tilsluttet stikkontakten.

Anmerkning:

Strømmen til apparatet er stått av på sekundaærsiden. Vær oppmerksom på aet følgende.

Dette apparatet kooies ikke fullstendig fra nettet så lenge støpseiet står i en stikkontakt, seiv om strømprvteren settes i av-stilling.

KENWOOD